

**DISCLAIMER APPLICABLE TO
THE SIGNING OF SUPPLEMENT #6 TO THE PRELIMINARY ENGINEERING AND
NEPA SERVICES AGREEMENT**

The following is a resolution drafted by the Nebraska Department of Roads (NDOR) that may be used by a Local Public Agency (LPA) when signing a Preliminary Engineering and NEPA Services for a Federal-aid transportation project. It is offered ONLY as an example resolution that could be used by the LPA with appropriate modifications, for participation in the LPA Federal-aid program, and is subject to change. The LPA is responsible for the language in its actual resolution. This sample resolution should only be used after the LPA has thoroughly reviewed all Federal-aid program requirements, investigated all issues related to the LPA's statutory duties and responsibilities, and determined that it is in its best interest to continue to seek Federal-aid funding for this project. NDOR has not made any effort to investigate, or include in this sample resolution, any other requirements that the LPA should include in the resolution or that the LPA must meet in order to undertake a project of this type (including designation of a Responsible Charge (RC) person, if the RC has not been designated yet or if the LPA is designating a RC to replace the previous RC). **Any changes to any substantive commitments of this sample resolution shall be approved in advance in writing by NDOR, or such changes will be considered null and void.** The LPA is ultimately responsible for all language used in its actual resolution and in making sure that the resolution is accurate and complete and meets all requirements of Federal, State and local laws, rules, regulations, policies and guidelines, and the NDOR LPA Guidelines Manual for Federal-aid Projects.

RESOLUTION

(SIGNING OF SUPPLEMENT #6 TO THE PRELIMINARY ENGINEERING AND NEPA SERVICES AGREEMENT)

City of Lincoln, Nebraska

Resolution No. _____

Whereas: The City of Lincoln and Nebraska Department of Roads (NDOR) are proposing a transportation project for which the City of Lincoln will obtain Federal funds;

Whereas: The City of Lincoln understands that it must strictly follow all Federal, State and local laws, rules, regulations, policies and guidelines applicable to the funding of the Federal-aid project; and

Whereas: The City of Lincoln and The Schemmer Associates wish to Supplement the Preliminary Engineering and National Environmental Policy Act (NEPA) Services Agreement setting out the various duties and fees for these services.

Be It Resolved: by the City Council, of the City of Lincoln that:

The Mayor is hereby authorized to sign the attached Supplement #6 to the Preliminary Engineering and NEPA Services Agreement between the City of Lincoln and The Schemmer Associates.

The City of Lincoln is committed to providing local funds for the project as required by the previously executed Project Program Agreement.

NDOR Project Number HSIP-5227(7),

NDOR Control Number 12944,

N. 14th St., (EB) off-ramp to U.S. Highway 6 Safety Project

Adopted this _____ day of _____, _____ at _____ Nebraska.
(Month) (Year)

The City Council, of the City of Lincoln:

Board/Council Member _____

Moved the adoption of said resolution

Member _____ Seconded the Motion

Roll Call: _____ Yes _____ No _____ Abstained _____ Absent

Resolution adopted, signed and billed as adopted

Attest:

[Signature of City or County Clerk or Corporate Secretary]

SUPPLEMENTAL AGREEMENT #6

CITY OF LINCOLN
THE SCHEMMER ASSOCIATES, INC.
PROJECT NO. HSIP-5227(7)
CONTROL NO. 12944
N 14TH STREET, (EB) ON-RAMP TO US-6

THIS SUPPLEMENTAL AGREEMENT is between the City of Lincoln ("LPA") and The Schemmer Associates, Inc. ("Consultant"), collectively referred to as the "Parties".

WHEREAS, Consultant and LPA entered into an agreement ("Original Agreement") BO1251 and Supplemental Agreement #1-5 providing for Consultant to provide Preliminary Engineering for LPA's Federal Aid project, and

WHEREAS, it is necessary that final design work be added under this Supplemental Agreement, and

WHEREAS, it is necessary to increase Consultant's compensation by this Supplemental Agreement for the additional work necessary to complete the project.

WHEREAS, it is the desire of LPA that the project be constructed under the designation of Project No. HSIP-5227(7), as evidenced by the Resolution of LPA, attached as EXHIBIT "A" and incorporated herein by this reference, and

NOW THEREFORE, in consideration of these facts and mutual promises, the Parties agree as follows:

SECTION 1. SCOPE OF SERVICES

Consultant will perform the additional work as set out in Exhibit "B", Scope of Services and Consultants Fee Proposal, attached and incorporated herein by this reference.

SECTION 2. NOTICE TO PROCEED AND COMPLETION SCHEDULE

LPA will issue Consultant a written Notice-to-Proceed upon full execution of this Supplemental Agreement. Any work or services performed by Consultant on the project prior to the date specified in the written Notice-to-Proceed is not eligible for reimbursement.

Consultant will complete all work stipulated in the Original Agreement, Supplemental Agreement(s) #1-5, and this Supplemental Agreement by October 31, 2018.

SECTION 3. FEES AND PAYMENTS

For the work required, SECTION 9 FEES AND PAYMENTS of the Original Agreement, as amended in supplement(s) 1-5, is hereby further amended in accordance with Exhibit "B" so that the fixed-fee-for-profit is increased from \$36,052.25 to \$54,465.21, an increase of \$18,412.96. Actual costs are increased from \$298,749.96 to \$444,394.08, an increase of \$145,644.12. The total agreement amount is increased from \$334,802.21 to \$498,859.29, an increase of \$164,057.08 which Consultant must not exceed without the prior written approval of the State.

SECTION 4. ENTIRE AGREEMENT

The Original Agreement, any and all other previous supplements thereto, and this Supplemental Agreement, constitute the entire agreement ("The Agreement") between the Parties. The Agreement supersedes any and all other previous communications, representations, or other understandings, either oral or written; all terms and conditions of the Original Agreement and all previous supplements thereto, to the extent not superseded, remain in full force and effect, and are incorporated herein as if set forth in their entirety.

SECTION 5. CONSULTANT CERTIFICATION AND REAFFIRMATION

The undersigned duly authorized representative of Consultant, by signing this Supplemental Agreement, hereby reaffirms, under penalty of law, the truth of the certifications set out in the Original Agreement and all Supplements thereto, including this Supplement. Further, Consultant has a duty to inform LPA of any material changes in the accuracy of all assertions set out in the Original Agreement and all Supplements thereto.

SECTION 6. CERTIFICATION OF LPA

By signing this Supplemental Agreement, I do hereby certify that, to the best of my knowledge, Consultant or its representative has not been required, directly or indirectly as an express or implied condition in connection with obtaining or carrying out this agreement to:

- (a) employ or retain, or agree to employ or retain, any firm or person, or
- (b) pay or agree to pay to any firm, person, or organization, any fee, contribution, donation, or consideration of any kind.

I acknowledge that this certification is to be furnished to the FHWA, upon their request, in connection with this agreement involving participation of Federal-Aid highway funds and is subject to applicable LPA and federal laws, both criminal and civil.

IN WITNESS WHEREOF, the Parties hereby execute this Supplemental Agreement pursuant to lawful authority as of the date signed by each party. Further, the Parties, by signing this Supplemental Agreement, attest and affirm the truth of each and every certification and representation set out herein.

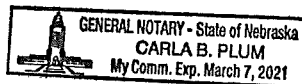
EXECUTED by Consultant this 4th day of January, 2018.

THE SCHEMMER ASSOCIATES, INC.
Steve Kathol, P.E.

Steve O. Kathol
Principal

STATE OF NEBRASKA)
)ss.
DOUGLAS COUNTY)

SUBSCRIBED AND SWORN to before me this 4th day of January, 2018.



Carla B. Plum
Notary Public

EXECUTED by LPA this _____ day of _____, 2017.

CITY OF LINCOLN
Chris Beutler

Mayor

Subscribed and sworn to before me this _____ day of _____, 2017.

Clerk

STATE OF NEBRASKA
DEPARTMENT OF ROADS
Form of Agreement Approved for
Federal Funding Eligibility:

Date

**SCOPE OF SERVICES
FINAL LIMITS OF CONSTRUCTION/FINAL DESIGN
PROJECT: HSIP-5227(7)
CONTROL NO.: 12944
LOCATION: 14th Street and Highway 6 – Lincoln, NE
TYPE OF WORK: Safety Project**

EXHIBIT B

PROJECT DESCRIPTION

The scope of the project consists of the reconstruction of the northbound and southbound N. 14th Street to eastbound U.S. Highway 6 (US-6) on-ramp in the City of Lincoln. This will include, as needed, reconstruction of the intersection at N. 14th Street with the eastbound US-6 off-ramp and portions of US-6 on-ramp. The current eastbound on-ramp is deficient in sight distance and acceleration/merge length creating a condition which has exhibited higher than average crash rates.

The selected alternative consists of a roundabout located just south of US-6. A new eastbound on-ramp will be reconfigured to the west of N. 14th Street in a loop interchange configuration with a parallel acceleration lane entering eastbound US-6. The extent of reconstruction/reconfiguration on US-6 is anticipated to be 1,200 feet with adjustments to existing storm drainage as necessary to match the shifted roadway. The selected alternative will require temporary easements for construction access.

During construction, local and regional detours are anticipated to minimize construction time. However, local and emergency access will be evaluated and final decisions will include input from local stakeholders. At a minimum, phasing will consider maintaining north-south traffic through the area. One lane of eastbound US-6 will be maintained at all times during construction.

LPA/NDOR TO PROVIDE OR COMPLETE

1. Sample plans on a similar project.
2. As-built plans of existing facility.
3. Adjacent property ownership data.
4. Deeds for previous R.O.W. projects (including railroad maps, railroad leases and city plats, if applicable).
5. Right-of-way plans, plats and/or maps.
6. LIDAR DTM (DAT or TIN) on DVD.
7. Wetland delineation and mitigation area design parameters.
8. Information available on the Department's website (www.dor.state.ne.us)
 - a. Geopak downloads (includes criteria files)
 - b. CADD Policy
 - c. Design drafting cell libraries
 - d. State of Nebraska Minimum Design Standards 2010
 - e. NDOR Design Process Outline (DPO), which also includes the plan-in-hand report outline, summary of quantities list, and checklists for design, plan-in-hand, earthwork, public hearing, and cost estimate.
 - f. NDOR Pipe Policy. (<http://www.dor.state.ne.us/docs/pipe-policy-english.pdf>)
 - g. Nebraska Highway Reference Log Book 2008. (<http://www.transportation.nebraska.org/docs/logbook.pdf>).
 - h. Standard item list.
 - i. Roadway Standard Plans/Standard Special Plans
 - j. Border sheets (MicroStation files) (<http://www.nebraskatransportation.org/roadwaydesign/microstation.htm>).
 - k. MicroStation bridge design files, including base sheets, current design standards, libraries, etc.
 - l. Traffic signing cell library.
 - m. Nebraska Topography Labeling Application (mdl application for use with Geopak).
 - n. NDOR Roadway Design Manual, current version (<http://www.transportation.nebraska.gov/roadway-design/pdfs/rwydesignman.pdf>).
 - o. Survey & Planimetric Info & Guidelines (<http://www.nebraskatransportation.org/roadway-design/planimetric.htm>)
 - p. NDOR Drainage Design and Erosion Control Manual (<http://www.transportation.nebraska.gov/roadway-design/dd-ec-manual.htm>).
 - q. NDOR Bridge Office Policies and Procedures Manual. (BOPP) (<http://www.transportation.nebraska.gov/design/bridge/downloads-manuals.html#bopp>).
 - r. NDOR ROW Manual.
 - s. NDOR Consultant Manual.

9. NDOR survey manual.
10. Survey traffic control policy.
11. Traffic safety signs (survey/inspection).
12. Information on USC and GS and/or USGS bench marks.
13. USGS Quad map(s) for the project.
14. State Plane Coordinate Manual.
15. Names of known utilities, addresses and permits listing use and occupancy permit data.
16. Title Research

APPLICABLE PUBLICATIONS

The Consultant shall follow the criteria of the current applicable publications. These publications and others which the Consultant may use in this work are:

1. AASHTO LRFD Bridge Design Specifications, 4th Edition.
2. Nebraska Minimum Design Standards – Counties, Municipalities, State, 2010 or most current (Nebraska Administrative Code Title 428; Rules and Regulations of the Board of Public Roads Classifications and Standards).
3. A Policy on Geometric Design of Highways and Streets 2011 (AASHTO).
4. Access Board (Architectural and Transportation Barriers Compliance Board)
5. Roadway Design Manual, latest edition (NDOR)
6. Roadway Design Drafting Cell Library Manual (NDOR)
7. Bridge Office Policies and Procedures Manual, latest edition (NDOR).
8. Highway Capacity Manual (HCM2010), Transportation Research Board.
9. Standard Specifications for Highway Construction, 2007 or latest edition (NDOR).
10. A Guide for Design of Structural Supports for Highway Signs, Luminaries and Traffic Signals (AASHTO).
11. Access Control Policy to the State Highway System, 2006 or latest (NDOR)
12. IES Lighting Handbook (Illuminating Engineering Society).
13. An Informational Guide for Roadway Lighting (AASHTO).
14. Roadway Lighting Handbook (USDOT, FHWA).
15. National Electric Code (NFPA).
16. National Electric Safety Code (IEEE).
17. Guide for Standardized Highway Lighting Pole Hardware (AASHTO, ARTBA, AGC).
18. Manual on Uniform Traffic Control Devices (MUTCD; FHWA), 2009 Edition
19. MUTCD – Nebraska 2011 Supplement to the MUTCD
20. Traffic Control Devices Handbook, 2001 or latest (FHWA).
21. Survey Crew Traffic Control Policy (NDOR).
22. NDOR Instructions to Flaggers.
23. Nebraska State Plane Coordinate System Datum Adjustment Computations Lambert Conformal System Manual.
24. Policy for Accommodating Utilities on State Highway Right-of-Way, 2001 or latest (NDOR).
25. Preliminary Survey Manual (NDOR)
26. Reference Guide Outline, Specifications for Aerial Surveys and Mapping by Photogrammetric Methods for Highways. (FHWA)
27. Roadside Design Guide, 2011 (AASHTO)
28. Federal Aid Policy Guide, 23 CFR 650A.
29. Federal Emergency Management Agency (F.E.M.A.) National Flood Insurance, Flood Boundary and Floodway Map, and Flood Insurance Study (FIS).
30. Bridges, Structure, and Hydraulics; FHWA Hydraulic Regulations and Non-Regulatory Supplements, Title 23, Section 650, Subpart A.
31. Hydraulic Engineering Circular Number 18 (HEC-18) "Evaluating Scour at Bridges, Fifth Edition." FHWA-HIF-12-003.
32. Hydraulic Engineering Circular No. 20 (HEC-20) "Stream Stability at Highway Structures, Fourth Edition," FHWA-HIF-12-004.
33. Hydraulic Design Series No. 5 (HDS 5) "Hydraulic Design of Highway Culverts, Third Edition," FHWA HIF-12-026.
34. "So You Want Access To The Highway," 2008 or latest (NDOR)
35. Drainage Design & Erosion Control Manual, 2006 or latest (NDOR).
36. Hydraulic Engineering Circular No. 22 (HEC-22) "Urban Drainage Design Manual, Third Edition," FHWA-NHI-10-009.
37. NCHRP Report 672 – Roundabouts: An Informational Guide, second edition, Transportation Research Board.
38. American Railway Engineering and Maintenance of Way Association (AREMA) Manual, current edition.
39. Accessible Rights-of-Way: A Design Guide, 2007.
40. Americans with Disabilities Act (ADA).
41. Americans with Disabilities Act Accessibility Guidelines.
42. Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way 2011
43. Guide for the Development of Bicycle Facilities 2012 (AASHTO).

44. TRB Special Report 214 "Designing Safer Roads Practices for Resurfacing, Restoration and Rehabilitation 1987. (for 3R projects only).
45. U.S. Geological Survey National Mapping Program Standard for Digital Orthophotos (Released 12/96).
46. LPA Guidelines Manual for Federal Aid Projects.

* If discrepancies occur between these publications, Consultant shall get a decision from the NDOR Project Coordinator.

TASK 1. Project Management

a. Project Management

The Consultant Project Manager will serve as point of contact, maintain project schedule and budget, and be responsible for coordinating work of subconsultants. Provide regular progress reports with invoices. Project Management efforts will follow appropriate guidance as given in the City website "Guiding Principles and Procedures (GP&P)"

b. Coordination with Others

The Consultant will coordinate their design with agencies and/or Consultants that are involved with this project or adjacent projects. Coordination includes one-on-one meetings with the agencies or Consultants. This task does not include coordination with utilities. See Task 4 for coordination with utilities.

TASK 2. General Project Meetings

a. Progress Meetings

The Consultant will schedule and attend all progress meetings. The Consultant will create and distribute a meeting agenda at least 48 hours prior to all progress meetings. The Consultant will prepare and distribute meeting minutes. This scope estimates 2 progress meetings.

b. Review Meetings

The Consultant will schedule and attend 2 review meetings to receive the City's review comments from the 60% Submittal and the Draft PS&E Submittal. The Consultant will prepare and distribute meeting minutes.

Task 3 Topographic Survey

a. Topographical Survey

Additional survey needs were identified during the plan-in-hand. The Consultant will survey the location of the new access to the UNL soccer complex on the east side of 14th Street. The limits will extend approximately 100 feet north and south of the soccer complex frontage road.

b. Base Map Preparation

Consultant will incorporate the additional topographic survey into the base map

c. Survey Control

The Consultant shall locate and/or reestablish the previously set control.

d. Utility Locates

Utilities will be drawn from surveying above ground features, including markings by utility companies resulting from the locate request. Information supplied by utility companies will be used to complete the placement of existing utilities on the plans.

TASK 4. Utility Coordination

a. Utility Location/Verification

Identification and verification by the Utility Companies of major utility conflicts such as fiber optic lines, gas pipelines, crude oil pipelines, high-pressure waterlines, transmission lines, etc., will be accomplished at the earliest possible time. The Consultant and the City's Project Manager will discuss major conflicts and attempt to avoid them. If avoidance is not possible, the Consultant will then request the Utility Company to verify the conflict and provide a preliminary estimate of reimbursable costs associated with the utility relocation.

b. Utility Plan Submittal

At each City review submittal, the plans will be distributed by the Consultant to public and private utilities for comment.

c. Utility Review Meetings/Coordination

Any utility review meeting should be scheduled to coincide with a regular project progress meeting or City review meeting. The Consultant shall include time for coordination via the phone and one-on-one meetings with affected utilities, depending on the complexity of the project.

TASK 5. Public Involvement

a. Web Site Development

The Consultant will maintain a web site for this project. The web site can reside on the Consultant's web page, but must be linked to the City of Lincoln's web page and must adhere to the City's standards in regards to content and appearance. The Consultant shall review and update the web site at a minimum on a monthly basis and will post/update open house information within 48 hours of open houses being scheduled.

TASK 6. Traffic

a. Traffic Signal / ITS Design / Street Lighting

Lighting will be designed by Lincoln Electric Systems (LES) after the Consultant supplies LES with electronic files. The Consultant will draft the lighting plans based on LES design.

b. Pavement Marking & Signing

The Consultant shall prepare plan sheets showing pavement marking and signage layouts. In addition, temporary signage and pavement markings will be shown, if applicable.

TASK 7. Structural Design

a. Retaining Wall

The Consultant shall prepare retaining wall profiles for the retaining wall along the project. This scope of services assumes all retaining walls are modular block walls and the Consultant is responsible for all design and details associated with the modular block walls.

The Consultant shall review the findings in the geotechnical report in the design of the soil types for retaining walls.

TASK 8. Landscape Design

Landscape design services will include all design for the roundabout center circle and other grassed areas within the right-of-way. Landscape design will follow City of Lincoln landscaping guidelines.

TASK 9. Drainage Design

The consultant shall design open and closed drainage systems in accordance with the most current edition of the City of Lincoln Drainage Criteria Manual, or as directed by the Watershed Management Department. This design will include flowline elevation determination, and curb inlet detail design work. It will also include detailed structural plans for the design of the extension for the open channel culvert.

TASK 10. Wastewater Design

The consultant shall prepare wastewater plan sheets and profile sheets to relocate the existing sanitary sewer manhole on the northwest corner of the intersection of N. 14th Street and the eastbound Hwy 6 off ramp.

TASK 11. Right-of-way Design

The Consultant will design temporary easements as necessary within the project limits. Four (4) tracts are assumed to require temporary easements for construction access.

The Consultant will prepare a right-of-way cost estimate per NDOR requirements.

TASK 12. Second Submittal

a. Second Submittal Design

The Consultant shall prepare project base files and plan sheets in accordance with the City of Lincoln CADD standards. All sheets that will be included in the PS&E plan set will be included in the second submittal. The following sheets will be included in the 60% functional/final design plan set.

- 1) Cover Sheet – Sheet will show updates to project changes.
- 2) Summary of Quantities Sheet – Sheet will include updated quantities from previous comments and work done for this submittal.
- 3) Typical Section Sheets – Sheet will show updates that reflect project changes.
- 4) Aerial Sheets – Sheet will show updates that reflect project changes.
- 5) General Notes Sheet – This sheet will include general notes for the City of Lincoln construction projects and notes unique to this project.
- 6) Detail Sheets – This sheet will include all pertinent detail sheets.
- 7) Horizontal/Vertical Control Sheets – Sheet will show all horizontal and vertical control for the project survey.
- 8) Construction Phasing Sheets – Consultant will develop plan for phasing of traffic through project area and determine detour routes if through traffic is not allowed.
- 9) Traffic Control Sheets – Consultant will design barricade and temporary signing plan and show these details in traffic control sheets.
- 10) Geometric Sheets – These sheets will include updates to the roundabout geometrics and new geometrics will be identified for other construction features in the project.
- 11) Joints and Grades Sheets – The consultant will define top of slab elevations every 25' and wherever necessary to clarify design decisions. Sheets will also show the jointing pattern along the project in the full-depth concrete sections of the project.
- 12) Roadway Plan and Profile Sheets – Sheets will be updated to reflect project changes. Plan sheets will also include stopping sight distance information and any special ditch information needed for design.
- 13) Construction Sheets – Design plans will be updated to reflect prior project updates.
- 14) Removal Sheets – Design plans will be updated to reflect prior project updates.
- 15) Retaining Wall Plan and Profile Sheets – Retaining wall profiles will be designed and drafted into a plan sheet.
- 16) Retaining Wall Details – Details for the type and method of construction will be developed for the wall details sheet.
- 17) Storm Drainage Plan Sheets and Profile Sheets – Drainage plan sheets will need to be updated to reflect the final design plan for the urban storm sewer system. Storm sewer profiles will need to be designed and drafted into plan sheets for the final plan set.
- 18) Culvert/Channel Cross-Section Sheets – Culvert cross sections for the pipes located under the Northwest on-ramp and driveway access will need to be created and labeled for inclusion into the plan set.

- 19) Box Culvert Extension – The Consultant will develop structural detail plans for the box culvert extension located near Station 110+70.
- 20) Sediment and Erosion Control Sheets – Erosion control measures will need to be designed by the consultant to follow City of Lincoln standards and avoid erosion impacts to adjacent private property.
- 21) Pavement Marking & Signing Sheets – Pavement marking plans and signing plans for the roundabout and other project street improvements need to be developed by the consultant as a part of this second submittal.
- 22) Earthwork Data Sheets – Consultant will determine earthwork cut and fill volumes based on roadway cross-sections and insert them in tabular form into a plan sheet.
- 23) Lighting Plan Sheets – Consultant will draft the lighting design prepared by LES.
- 24) Landscaping Plan Sheets – Consultant will provide landscaping design plan sheets based on City of Lincoln landscape design standards.
- 25) Roadway Cross-Section Sheets – These plans are to show the existing and proposed roadway cross-section, stationing, grade elevations, the location of the right of way, easements and utilities.
- 26) Right-of-Way Sheets – Consultant will prepare right-of-way sheets for up to four tracts. The sheets will include a Tract summary of areas (#2) sheet and sheets showing all tracts required. Consultant will also prepare legal descriptions for the easements/right-of-way required. Effort to modify the easements and right-of-way based on negotiations is included with this task. Consultant will stake up to four tracts during negotiation.

b. Cost Estimates

The Consultant shall prepare an updated total project cost estimate and working day estimate. This shall include, but not be limited to Preliminary Engineering, Private Utility Relocations, Public Utility Relocations, Construction, and Construction Engineering on the appropriate forms. The Construction Estimate shall be prepared using the current City of Lincoln's version of Masterworks software and submitted electronically.

The Consultant shall also prepare the DR Form 342 and 343 at the Second Submittal stage.

TASK 13 Final Design

a. Draft PS&E Submittal (90% Submittal Package to NDOR)

The Consultant shall submit a draft PS&E package, along with all project checklists, to the RC for final review. The plan set will incorporate all review comments and make sure all tasks identified in the 60% submittal have been completed. The package will include the plan set (including right-of-way plan sheets) special provisions, and total project quantities. The Consultant shall prepare an updated total estimate of quantities and project cost estimate. This shall include, but not be limited to Preliminary Engineering, Functional Engineering, Final Engineering, Utility Relocations and Construction Engineering.

The Consultant shall also update the DR Form 342 and 343 and prepare individual item summary sheets per NDOR standards

b. Final PS&E Submittal

Upon incorporating review comments into the plan set and special provisions, the Consultant shall prepare and submit all drawings, special provisions, and an estimate of quantities to the RC for the final PS&E review. After the RC has completed their review of the PS&E plans and specifications, the RC will instruct the Consultant to submit the bid package to the NDOR PC. The bid package includes horse blankets, summary of quantity sheets (DR 342 and DR 343), updated individual item summary sheets, DR 263, status of utilities, sealed drawings and special provisions.

TASK 14. NEPA

Consultant to prepare NDOR Environmental Green Sheet

TASK 15. Quality Assurance / Quality Control (QA / QC)

The consultant will give a copy of their QA / QC plan to the City's Project Manager at the start of final design. The consultant will submit in writing that this plan has been used during the project at each submittal with the name of the person responsible for performing the QA / QC aspects.

TASK 16. Permit Applications / Agreements

The Consultant shall prepare and submit on behalf of the City of Lincoln the following applicable permits, agreements, certifications, and forms. The Consultant shall copy the City's project manager on all applications being submitted.

☐ **Corps of Engineers 404 Permit**

1. 404 Pre-construction Notification (PCN) Preparation

A PCN Package will be prepared using information from the wetland delineation and the on-site pre-application meeting already conducted with USACE officials. The PCN will follow the current NDOR process in place at the time of this agreement. All materials will be submitted to the LPA and NDOR for review and approval prior to NDOR's submittal to the USACE.

An electronic file of the documents will be submitted to NDOR for review. Consultant will revise materials up to one (1) time per NDOR comments, and resubmit to the LPA.

2. Agency coordination

Consultant will coordinate with the USACE and if needed, attend one (1) on-site post-application meeting.

- ☐ Floodplain Permit
- ☐ SWPPP - NPDES Permit
- ☐ NDOR Use of Right of Way Permit

TASK 17. Construction Phase (to be added by Supplemental Agreement)

Construction phase services are not included with this scope of service, but can be provided, by supplemental agreement, if requested by the City.

TASK 18. Non-Participatory Tasks (Local Funding)

a. *Traffic Signal / ITS Design / Street Lighting*

4" Conduit shall be placed to connect to proposed ITS devices being installed with the project. Conduit and fiber are already in place along N. 14th Street, south of US-6.

In conjunction with this project, the following ITS devices will be designed/installed:

- One (1) lowering pole traffic monitoring camera

SHEET COUNT

Sheet Name	Sheet No.	Scale*	No. of Sheets	Plan-in-Hand 30%	Functional Plans 60%	Draft 90%	Final PS&E 100%
Preliminary Title Sheet	1	N.T.S.	1		X	X	X
Title Sheet	1	N.T.S.	1		X	X	X
Typical Cross-Section Sheets	2-T	N.T.S.	3		X	X	X
Detail Sheets	2-?	N.T.S.	1		X	X	X
Summary of Quantities Sheet	Prepared by NDOR						
Summary of Soil and Materials Information	2-K	N.T.S.	N/A		N/A	N/A	N/A
Aerial Photo \ Wetland Sheets	2-A / 2-W	1" = 50'	2		X	X	X
Horizontal/Vertical Control Sheets	2-H	N.T.S.	2		X	X	X
General Notes Sheet	2-N	N.T.S.	1		X	X	X
Construction Phasing Plans	2-P	1" = 50'	3		X	X	X
Geometric Sheets	2-L	1" = 20'	4		X	X	X
Joints and Grades Sheets	2-L	1" = 20'	4		X	X	X
Construction \ Drainage Sheets	2-L	1" = 20'	12		X	X	X
Removal Sheets	2-L	1" = 20'	6		X	X	X
Sediment and Erosion Control Sheets	2-L	1" = 20'	6		X	X	X
Roadway Plan and Profile Sheets	3+	1" = 100'	4		X	X	X
Retaining Wall Plan and Profile Sheets	3+	1" = 20'	1		X	X	X
Traffic Control Sheets	3+	1" = 50'	5		X	X	X
Pavement Marking & Signing Sheets	3+	1" = 20'	6		X	X	X
Lighting Plan Sheets	3+	1" = 20'	6		X	X	X
Wastewater Plan Sheet	3+	1" = 20'	1		X	X	X
Wastewater Profile Sheet	3+	1" = 20'	1		X	X	X
Earthwork Data Sheets	3+	N.T.S.	1		X	X	X
Storm Drainage Sections	3+	1" = 10'	3		X	X	X
Box Culvert Special Plan	3+	N.T.S.	1		X	X	X
Right-of-way Plans	R1-R4	1" = 20'	4		X	X	X
Additional Special Plans	Prepared by NDOR						
Roadway Cross-Section Sheets	X-	1" = 10'	10		X	X	X
* Note: Scale is for a full size plot							

GENERAL INFORMATION

The Consultant shall prepare and submit the following items to the RC:

1. Technical memos for all pertinent meetings
2. Meeting minutes from all meetings
3. Miscellaneous correspondence and information related to the project
4. Summary of quantities
5. Special Provisions will be developed for items not covered in the 2007 edition of the Nebraska Department of Roads Standard Specifications and Special Provisions for Highway Construction.

1. PLAN FORMAT

Six Half size (11" x 17") white paper bond copies of the plans will be submitted at the first submittal, second submittal, and draft PS&E submittal. One full-size (24" x 36") white paper bond copy of the plans will be submitted for PS&E review. Any material, which does not produce an acceptable reproduction will be returned to the Consultant for rectification. All submittals, except final mylar submittal, shall be bound with post screws or staples.

Final plans will be submitted on 11" x 17" Mylar and will be accompanied by an electronic copy of the design in MicroStation, GEOPAK format. GEOPAK GPK files will also be submitted.

All sheets will be plotted at the City of Lincoln's standard sheet scales.

Care will be exercised in drawing all construction details. All notes will be properly spaced and all lettering will be of an engineering style. Clarity must be maintained to allow the plans to be archived on microfilm; the background topography, grid lines etc. on plan and profile sheets will be removed behind the text.

The Consultant shall follow the City of Lincoln's CADD drafting procedures and guidelines in preparing the plans.

The CADD files will conform to the following standards and conventions. All plans, specifications, and documents will be in English units using the following working units:

- a) Master Units = Ft
- b) Sub Units = 1000th
- c) Position Units = 1

Global origin of the graphics design plane will be located at x= 0.0000, y= 0.0000.

Reports, Studies and Technical Information:

The Consultant shall prepare and submit the following items:

1. Technical memos for all pertinent meetings
2. Meeting minutes from all meetings
3. Traffic Analysis report for all intersections as requested
4. Drainage computations, culverts and storm drainage design
5. Miscellaneous correspondence and information related to the project
6. Summary of quantities and opinion of probable cost
7. Permit applications
8. Special Provisions for items not covered by the City of Lincoln Standard Specifications
9. Intersection Sight Distance Study for all side streets along the main roadway.

Cross-sections

The Consultant will:

1. Plot cross-sections with the labeling of the sections on the right side of the sheet, label existing and design centerline elevations at their respective centerline, and offset distances 20 feet from the design centerline along the bottom of each sheet.
2. Plot cross-section on standard size sheets (same size as the plan and profile sheets).
3. Roadway cross-sections are to be plotted using a vertical and horizontal scale of 1" = 20'.
4. Plot the cross-sections with the stations progressing upward from the bottom to the top of the sheet.
5. Plot the original ground with a dashed line

6. Plot the design template with a solid line.
7. Label the cut and fill quantities for each section.
8. Plot the right-of-way and easements on each cross section.

2. RIGHT-OF-WAY SUBMITTALS

Plan submittals and right-of-way documents for the project will include, but not be limited to the following:

1. Summary Sheet
2. Right-of-way Plan Sheets
3. Legal Descriptions
4. Condemnation plats (Tract Maps)

The second submittal (Appraisal/Negotiation Plans) will show the proposed right-of-way and easement design. The plans will show new temporary and permanent easements needed for construction and maintenance of the new roadway, as well as the additional right-of-way.

A summary sheet (#2 sheet) will be prepared showing the area of new right-of-way or acquisition needed from each tract along the project in square feet, along with a strip map showing the location of the tracts. Legal descriptions will be prepared for tracts needing additional right-of-way or easements.

The Consultant will make right-of-way design alterations as required by the City's Project Manager during negotiations. The revisions to the plans must be made within ten working days after the City's Project Manager requests the revision.

The right-of-way and easements will be staked for use by the City during negotiations. This activity should be coordinated between the Consultant and the City's Project Manager.

The PS&E plan submittal will show the right-of-way as acquired or as being acquired through eminent domain.

If needed, the Consultant will prepare right-of-way condemnation plats including legal description as requested by the City's Project Manager within ten working days of the request. Condemnation plats will be limited to zero tracts.

The final right-of-way plans will be submitted on 11" x 17" bond with the bid package and will be accompanied by an electronic copy of the design in MicroStation format.

ANTICIPATED SCHEDULE – SUBJECT TO NEPA APPROVAL

1. Notice to proceed	week of July 17, 2017
2. 60% Plans (Second Submittal)	week of January 15, 2018
3. Review Meeting	week of February 21, 2018
4. Draft PS&E 90% Plan Submittal	week of May 21, 2018
5. Right-of-way Acquisition	May 2018-January 2019
6. PS&E Submittal	January 2019
7. Letting	Spring 2019

Note: Consultant evaluation using DR 54 Form will be completed to correspond to major milestone deliverables noted in previous sections of this Scope of Services.

Final Design Consultant Estimate of Hours

Project Name: N. 14th St. & EB Off-Ramp to U.S. Highway 6 Safety Project
 Project Number: HSIP-6227(7)
 Control Number: 12944
 Location (City, County): Lincoln, Lancaster
 Firm Name: The Schemmer Associates
 Consultant Project Manager: Mark Luftharmer
 Phone/Email: W. (402) 488-2500 C. (402) 431-6207 / mluftharmer@schemmer.com
 LPA Responsible Charge: Craig Aldridge
 Phone/Email: (402) 416-5349 caldridge@lincoln.ne.gov
 NDOR Project Coordinator: Ratis Tigeris
 Phone/Email: (402) 479-3843 / ratis.tigeris@nebraska.gov
 Date: 1/6/2016

TASKS	PERSONNEL CLASSIFICATIONS*											Total
	PR	SR	ENG	ENG	DES	TECH	PI	RLS	SCG	S TECH	ADMIN	
For Final Design												
1. Project Management												
a. Project Management	20		60									80
b. Coordination with Others			18	18								36
2. General Project Meetings												
a. Progress Meetings			6	4								10
b. Review Meetings (2)			10	8								18
3. Topographic Survey												
a. Topographical Survey								3	10	10		23
b. Base Map Preparation									10			10
c. Survey Control								1	3	2		6
d. Utility Locates								1	1	1		3
4. Utility Coordination												
a. Utility Location / Verification			1	4		4						9
b. Utility Plan Submittal			2	8		8						18
c. Utility Review Meetings / Coordination			12	12		8						32
5. Public Involvement												
a. Web Site Development			2	8		8	2					20
6. Traffic												
a. Traffic Signal / ITS Design / Street Lighting												
b. Pavement Marking & Signing			24	2								26
7. Structural Design												
a. Retaining Wall			1	4		4						9
8. Landscape Design												
a. Landscape Design												
9. Drainage Design												
a. Drainage Design			2	8	16							26
10. Watershed Design												
a. Drainage Design			2		8	16						26
11. Right-of-Way Design												
a. Right-of-Way Design			2	8		8						18
12. Second Submittal												
a. Second Submittal Design												
1) Cover Sheet				1		2						3
2) Summary of Quantities Sheet			1	2		8						11
3) Typical Section Sheets			1	4		4						9
4) Aerial Sheets				1		4						5
5) General Notes Sheet			1			2						3
6) Detail Sheets			8	8		16						32
7) Horizontal/Vertical Control Sheets				1		2						3
8) Construction Phasing Sheets			8	16		24						48
9) Traffic Control Sheets			2	16		24						42
10) Geometric Sheets			4		8	24						36
11) Joints and Grades Sheets			5	16		16						47
12) Roadway Plan and Profile Sheets			4	8	20	20						52
13) Construction Sheets			3		12	12						27
14) Removal Sheets			2		2	4						8
15) Retaining Wall Plan and Profile Sheets			1	4		8						13
16) Retaining Wall Details				1		2						3
17) Storm Drainage Plan and Profile Sheets			2	4	16	16						38
18) Culvert/Channel Cross-Section Sheets			1		4	4						9
19) Box Culvert Extension			4	16		16						36
20) Sediment and Erosion Control Sheets			4		16	20						40
21) Pavement Marking & Signing Sheets			2			24						26
22) Earthwork Data Sheets					12	4						16
23) Landscaping Plan Sheets			2			16						18
24) Roadway Cross-section Sheets			4		40	16						60
25) Right-of-Way Sheets			4	8		16		8	12	10		50
b. Cost Estimates			4	8		16						28
13. Final design												
a. Draft PS&E Submittal			20	40	40	120						220
b. Final PS&E Submittal			8	24	24	48						104
14. NEPA												
NEPA			2		8							10
15. Quality Assurance / Quality Control												
Quality Assurance / Quality Control			24									24
16. Permit Applications / Agreements												
Corps of Engineers 404 Permit			2	2		4						8
Floodplain Permit			2	8		8						18
SWPPP - NPDES Permit			2		8	8						18
NDOR Use of Right of Way Permit			2	8		8						18
17. Construction Phase (to be added by Supplement A and B)												
18. Non-Participatory Tasks (Local Funding)												
a. Traffic Signal / ITS Design / Street Lighting			16	4		16						36
Total Hours	20		208	280	228	360	2	13	36	23		1,486
Total Days @ 8 hrs	2.5		26.0	35.0	28.5	45.0	0.3	1.6	4.5	2.9		185.3

CLASSIFICATIONS:
 PR Principal
 SR ENG Project Manager / Senior Engineer
 ENG Project Engineer/Senior Technician
 DES Engineer/Senior Technician
 TECH Engineering Technician
 PI Public Involvement Coordinator
 RLS Registered Surveyor
 SCG Survey Crew Chief

S TECH Survey Technician

Consultant Independent Cost Estimate for CN 13147
 Estimate of Hours

Final Design Labor Rates

Project Name: N. 14th St. & EB Off-Ramp to U.S. Highway 6 Safety Project
 Project Number: HSIP-5227(7)
 Control Number: 12944
 Location (City, County): Lincoln, Lancaster
 Firm Name: The Schemmer Associates
 Consultant Project Manager: Matt Shimerda
 Phone/Email: W. (402) 488-2500 C: (402) 431-6204 / mshimerda@schemmer.com
 LPA Responsible Charge: Craig Aldridge
 Phone/Email: (402) 415-5349 caldridge@lincoln.ne.gov
 NDOR Project Coordinator: Jared Rockemann
 Phone/Email: (402) 479-3843 jared.rockemann@nebraska.gov
 Date: 4/25/2017

Labor Costs:		Hours	Blended Rate	Amount
Code	Classification Title			
PR	Principal	32	\$58.30	\$1,865.60
SR ENG	Project Manager / Senior Engineer	310	\$51.70	\$16,027.00
ENG	Project Engineer/Senior Technician	385	\$44.44	\$17,109.40
DES	Engineer/Senior Technician	128	\$29.80	\$3,827.20
TECH	Engineering Technician	623	\$23.70	\$14,785.10
PI	Public Involvement Coordinator	24	\$36.10	\$866.40
RLS	Registered Surveyor	12	\$40.28	\$483.36
SCC	Survey Crew Chief	30	\$24.78	\$743.40
S TECH	Survey Technician	16	\$20.75	\$332.00
ADMIN	Administrative Assistant		\$22.79	
TOTALS		1560		\$56,019.46

Overhead Rate: 158.90%
 Fixed Fee: 13.25%

Blended Rates Worksheet

STAFFING PLAN		SALARY RATE	% ASSIGNED
EMPLOYEE NAME			
Principal			
Doug Holle	\$58.30	100.0%	
			\$58.30
Project Manager / Senior Engineer			
Shane Swope	\$54.50	20.0%	
Matt Shimerda	\$50.50	60.0%	
Darin Brown	\$52.50	20.0%	
			\$51.70
Project Engineer/Senior Technician			
Tim Steffen	\$46.16	60.0%	
Adam Sleeper	\$43.16	20.0%	
Matt Rasmussen	\$40.59	20.0%	
			\$44.44
Engineer/Senior Technician			
Tyler Lerdahl	\$30.00	70.0%	
Alex Roth	\$30.30	20.0%	
Ian Plummer	\$28.40	10.0%	
			\$29.80
Engineering Technician			
Megan Stamer	\$23.70	100.0%	
			\$23.70
Public Involvement Coordinator			
Michelle Westphalen	\$26.65	60.0%	
Matt Shimerda	\$50.28	40.0%	
			\$36.10
Registered Surveyor			
Tim Conway	\$42.60	75.0%	
Vance Clark	\$33.30	25.0%	
			\$40.28
Survey Crew Chief			
Tony Bruckner	\$29.80	34.0%	
Ray Flock	\$21.39	33.0%	
Sean Conway	\$22.90	33.0%	
			\$24.78
Survey Technician			
Kevin Kittridge	\$21.85	50.0%	
Nick Hug	\$19.65	50.0%	
			\$20.75
Administrative Assistant			
Jill Lafemiere	\$22.79	100.0%	
			\$22.79

Final Design Direct Expenses

Project Name:	N. 14th St. & EB Off-Ramp to U.S. Highway 6 Safety Project
Project Number:	HSIP-5227(7)
Control Number:	12944
Location (City, County):	Lincoln, Lancaster
Firm Name:	The Schemmer Associates
Consultant Project Manager:	Matt Shimerdla
Phone/Email:	W: (402) 488-2500 C: (402) 431-8204 / mshimerdla@schemmer.com
LPA Responsible Charge:	Craig Aldridge
Phone/Email:	(402) 416-5349 caldridge@lincoln.ne.gov
NDOR Project Coordinator:	Jared Rockemann
Phone/Email:	(402) 479-3843 jared.rockemann@nebraska.gov
Date:	1/6/2016

Subconsultants:	Quantity	Unit Cost	Amount
WSP USA Inc.	1	\$6,408.82	\$6,408.82
Subtotal			\$6,408.82

Printing and Reproduction:	Quantity	Unit Cost	Amount
90 - 36"x24" plan sheets plotted 2 times	180	\$2.00	\$360.00
90 - 11"x17" half size plan sheets plotted 10 times	900	\$0.10	\$90.00
5 displays, 32"x40"		\$60.00	
500 black & white copies	500	\$0.05	\$25.00
100 color copies (public meeting handouts, etc.)	100	\$0.10	\$10.00
Subtotal			\$485.00

Mileage/Travel:	Quantity	Unit Cost	Amount
Survey Vehicle Days			
Geotechnical Engineer Mileage			
Mileage	200	\$0.535	\$107.00
Subtotal			\$107.00

Lodging/Meals:	Quantity	Unit Cost	Amount
Subtotal			

Other Miscellaneous Costs:	Quantity	Unit Cost	Amount
Miscellaneous Postage, Mailing, Deliveries Etc.			
Website	2	\$100.00	\$200.00
Geotechnical Field / Lab Expenses			
Subtotal			\$200.00
TOTAL DIRECT EXPENSES			\$7,200.82

Final Design Project Cost

Project Name:	N. 14th St. & EB Off-Ramp to U.S. Highway 6 Safety Project
Project Number:	HSIP-5227(7)
Control Number:	12944
Location (City, County):	Lincoln, Lancaster
Firm Name:	The Schemmer Associates
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NDOR Project Coordinator:	Jared Rockemann
Phone/Email:	(402) 479-3843 jared.rockemann@nebraska.gov
Date:	1/6/2016

Direct Labor Costs:	Hours	Rate	Amount
Personnel Classification			
Principal	20	\$58.30	\$1,166.00
Project Manager / Senior Engineer	288	\$51.70	\$14,889.60
Project Engineer/Senior Technician	282	\$44.44	\$12,532.08
Engineer/Senior Technican	234	\$29.90	\$6,996.60
Engineering Technician	588	\$23.70	\$13,935.60
Public Involvement Coordinator	2	\$36.10	\$72.20
Registered Surveyor	13	\$40.28	\$523.64
Survey Crew Chief	36	\$24.78	\$892.08
Survey Technician	23	\$20.75	\$477.25
Administrative Assistant		\$22.79	
TOTALS	1486		\$51,485.05

Direct Expenses:	Amount
Subconsultants	\$6,408.82
Printing and Reproduction Costs	\$485.00
Mileage/Travel	\$107.00
Lodging/ Meals	
Other Miscellaneous Costs	\$200.00
TOTALS	\$7,200.82

Total Project Costs:	Amount
Direct Labor Costs	\$51,485.05
Overhead @ 168.90%	\$86,958.25
Total Labor Costs	\$138,443.30
Fixed Fee @ 13.30%	\$18,412.96
Direct Expenses	\$7,200.82
PROJECT COST	\$164,057.08